THE CARE OF THE FUNCTIONING BREAST.*

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It is generally admitted that the natural food for the human infant is human milk, that breast fed babies are more likely to live than the artificially fed, and that as a class they are healthier, more vigorous, and more resistant.

Few appreciate, however, how much greater the mortality is in artificially fed than in breast fed infants. Statistics show that 75 to 90 per cent. of all deaths during the first year are in artificially fed children. The younger the baby the higher the mortality. About one half of all deaths under one year occur in the first two months of life.

The mortality of babies below one year, is for exclusively breast fed 6.98 per cent., for those brought up on a mixture of breast milk and artificial food 9.87 per cent., for those fed artificially 19.75 per cent. This means that 13 out of every hundred of these babies die, during the first year, for the lack of maternal nursing.

The responsibility for these deaths lies too frequently with the doctor. The main reason why women do not nurse their babies, is that they do not understand its importance, and this to a considerable extent, is due to the fact that the doctor does not give proper instructions and careful supervision of details. The best artificial food is never equal to good mother's milk.

It is said that in Greenland and among the Esquimos, artificial feeding is practically unknown, and that in Japan breast feeding is the rule. In other countries the proportion of breast fed babies is much smaller. Among dispensary patients and those of the tenement districts of American cities, it is estimated that 60 to 80 per cent. of the women attempt to nurse their children. Among the so called higher class seen in private practice, statistics available would indicate a very much lower percentage.

Dr. L. Emmett Holt, in his text book, is responsible for the following statement:

"Among the well-to-do classes in New York and the suburbs, of those who have earnestly and intelligently attempted to nurse, not more than 25 per cent., in my experience, have been able to continue satisfactorily for as long as three months. An intellectual city mother who is able to nurse her child successfully for the entire first year is almost a phenomenon. Among the poorer classes in our cities a marked decline in nursing ability is also seen, although not yet to the same degree as in the higher social scale."

Unfortunately, in the text books of our foremost American obstetrical teachers, a similar discouraging attitude is assumed.

I have always been much impressed by the statements regarding the feeding of infants during the Siege of Paris (1870-1871). It is said that on account of the absence of cow's milk, the women, under trying conditions, were compelled to nurse their babies, and the infant mortality, under a year, fell from 33 to 7 per cent.

It is probably fair to say that all women who do not nurse their babies, fall into one of two classes, those who are unable, and those who are unwilling. Among the working and poorer classes, one must admit that sometimes, for financial reasons, a mother may find it impossible to give herself up to that effort, but it is among the well-to-do mothers that one finds the lowest percentage of breast fed babies.

I have for some time made a special effort to increase the percentage of breast fed babies among my patients, and I am fully convinced that the percentage of those who are truly physically unable is extremely small, and that a very large proportion can do so if they are willing to make the necessary effort.

Preparations for nursing should begin early in pregnancy. A careful physical examination, correction of abnormalities—such as anaemia, constipation, etc., regulation of diet, and the stimulation of normal elimination, especially of the skin, are important. The patient should be assured from the beginning of her ability to nurse her baby satisfactorily. Retracted nipples should be drawn out; and during the last month or longer, the nipples should be scrubbed each night vigorously with castile soap and treated freely with lanolin. Lanolin makes the skin soft and pliable, and in my hands has given much better results than preparations containing alcohol, which though they harden the skin, tend at times, to favor cracking when the baby nurses.

About twelve hours after delivery the child should be put to the breast. Nursings from the beginning should be regular and as thorough as possible. The infrequent schedule commonly recommended for the first few days is wrong, for it is the regular, frequent, thorough stimulation, which assures a good milk supply. The child should nurse every three hours during the day and every four hours during the night from the beginning. The two hour schedule is unnecessarily strenuous on the mother, and the four hour schedule, in my experience, does not sufficiently stimulate the breasts.

After the mother's bowels have moved well, she may be allowed any wholesome food which agrees with her. Green vegetables and acid fruits do not as a rule cause any trouble, and I always allow them freely, until some supposed bad effect is noted. Plenty of wholesome food, and a normal amount of fluids are the essentials.

There is no such thing as complete absence of milk if the baby nurses. The milk always comes in, usually the third to the fifth day, but on one occasion a sufficient milk supply was obtained only after three weeks' effort.

Much harm is frequently done, by meddlesome treatment when the breasts first become engorged. At this time it is only necessary to keep the nipples clean, avoid bruising, see that the breasts are periodically, thoroughly emptied by the baby, or if the baby does not nurse well, by the use of a breast pump, in order that an abundant milk sup-

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ply may be assured. If the breasts are heavy and pendulous, a loose supporting binder is permissible, but pressure bandages do no good, and may be injurious. Massage may lead to bruising and infection, ointments are of very questionable value, salts or active purgatives are contra-indicated, and to cut down the liquid is futile or harmful. I have never seen a hard engorged breast at this stage, lead to abscess formation except in cases where infection and bruising have been introduced by meddlesome attention. Nature has a wonderful power to take care of any excess of milk when given the opportunity unhindered.

When the amount of milk is insufficient it is wise to eliminate all unnecessary wasting of nerve energy, visitors, etc. It is customary also to force liquids and food. Many galactogogues have been recommended, but I doubt that they have much, if any value over good wholesome food. Provided the patient is getting a normal amount of rest, fresh air, food and liquids, the one thing which will do the most to bring up the milk supply is regular, periodic, thorough emptying of the breasts by natural methods if possible, by artificial means if necessary. In other words the child should be made to empty the breast, and when this fails the breast should be pumped after the child has nursed. Stimulation of the breasts after they are empty will make more milk come later. A hungry baby in these cases is a desirable thing, and for this reason it is always, when possible, wise to avoid any artificial feeding, either before or after nursing, and only in exceptional cases is it wise to allow the child to nurse both breasts at one feeding.

One of the most valuable and simplest procedures we have is the weighing before and after nursing. In this way we learn exactly the amount the child is getting. When the amount gained in the usual time is insufficient, the baby may be put back to the breast for a supplementary nursing of a certain number of minutes. This has the advantage of giving the child more food and giving the breasts additional stimulation. If the child is premature, the additional stimulation may be obtained by the use of a breast pump.

The point which is usually overlooked is that moderate hunger is a good thing, for it is the hunger that causes the child to stimulate the breast and automatically increase the food supply. To give artificial food satisfies the hunger, prevents the extra stimulation, and further diminishes the milk supply. Most babies are weaned about two months after the first bottle of artificial food is given, although all of us can cite exceptional cases.

It is commonly taught that at birth a baby's stomach has a capacity of one ounce, but by weighing before and after nursing, we learn that an average sized normal baby will during the second week take anywhere up to six ounces at a feeding. The average amount taken in the second week by a baby, that is gaining well, is about three to three and a half ounces at a feeding. The amount varies at different times of the day, and the total amount varies on different days, but the important thing to remember is that although under certain disturbing conditions the milk supply may be diminished on some days, the supply will always be restored if we persist in the nursing, stick to the schedule, and avoid all artificial food.

I have many times been told of cases in which the milk suddenly completely disappeared and did not return, but I have never seen such a case.

When a baby is on a three-hour schedule, a so called "matinee bottle" should not be given, the breasts require the stimulation in order to maintain the supply.

Many obstetricians advise cutting out one or two night-feedings as early as the child will sleep past them. This is a mistake, although it is desirable that the patient have unbroken sleep when possible, and some babies will sleep well all night. I find that the milk supply is almost always materially diminished a very few weeks after omitting one of the night nursings, and for this reason I urge all of my patients to continue the four hour schedule during the night until at least the end of the fourth month.

In my practice, colic is an unusual condition, and as a rule by weighing the baby before and after nursing we find the cause for crying. A breast fed baby that is gaining four or more ounces a week and whose bowels are moving one or more times daily rarely has a severe illness, and provided the bowels move once a day or oftener, the color and consistency or the presence of mucus or curds, is of little importance.

The routine analysis of a single specimen of mother's milk is of practically no value and I have long since ceased making these examinations.

Contra-indications to nursing in a woman who has borne a healthy child, are relatively few. Those generally recognized, are Acute Pulmonary Tuberculosis, Healed Tuberculosis, Insanity, Epilepsy, certain chronic wasting diseases, severe haemorrhages, and Chronic Nephritis.

The Syphilitic mother should be given treatment and should be compelled to nurse her child, as both the patient and infant in this way profit by the treatment.

In cases of Eclampsia, after the patient has recovered from the acute attack and elimination has been thoroughly established, it is my rule to have the patient nurse the baby, and I have not seen bad results. It is, however, important to establish the elimination thoroughly before putting the child to the breast.

Although a definite indication may arise for weaning a baby, such as Lactational Psychosis, Acute Hyper-thyroidism, Acute Miliary Tuberculosis, or other relatively rare conditions, it is quite common to find that babies have been weaned during the early months quite unnecessarily, or for very slight causes, such as crying, constipation, etc.

Menstruation is not sufficient cause for weaning a baby, slight changes are produced in the milk particularly a dimunition in the amount, but contrary to common belief the greater majority of women normally begin menstruating during lactation. I have always urged my patients to continue nursing and have not seen serious bad effects. It

is a mistake to give a temporary supplementary bottle.

Tonsilitis, acute colds, and the usual infectious diseases, are not as a rule indications for weaning the infant, because the infant through the milk from the infected mother receives anti-bodies which protect it against the disease.

The nipples should be carefully protected against handling and soiling and they should be cleansed with boric solution before and after each nursing. When fissures appear they should be treated with mild healing antiseptics. The nursing should not be discontinued, although at times a nipple-shield may be used as a temporary relief from the biting of the infant. The breast is rarely emptied so efficiently through the nipple-shield, and its use should be discontinued as soon as possible.

When a lymphangitis develops, the patient should be confined to bed, ice applied constantly to the breast, water forced, and the breast thoroughly emptied at the regular intervals by nursing. To begin treatment early is of the utmost importance. Heat should not be applied and massage is bad. I have never seen a breast abscess develop in a case where the above advice was followed and I have never seen bad effects in an infant from nursing an infected breast treated as above.

To prevent establishment of milk supply or to dry up the supply when it has once become established, it is only necessary to protect the breasts against brusing and contamination, and leave them absolutely alone. It is unnecessary to restrict liquids or give cathartics; pressure binders are unnecessary; heat, massage and ointments are injurious. A loose support may add to the patient's comfort, and the temporary engorgement may justify a few doses of Codein to relieve the pain. The patient should be cautioned against rubbing or bruising the breasts. To massage or pump the breast is dangerous and prolongs the discomfort. If the breasts are protected against bruising and infection, the discomfort will be of short duration, and I have never seen abscess formation where this treatment has been followed absolutely.

To gain some idea of the result obtained I have analyzed 100 consecutive cases, excluding only those cases which dropped out of sight at the end of the puerperium. Most of these cases had returned to their homes in other cities, and all of them were nursing their babies when last seen.

98 nursed three months or longer, and 86 of these were still exclusively breast fed.

89 nursed five months or longer, and 77 of these were still exclusively breast fed.

75 nursed seven months or longer, and 54 of these were still exclusively breast fed.

56 nursed nine months or longer, and 32 of these were still exclusively breast fed.

So far as I am able to learn, two babies died during the first year, one at six and a half months of broncho-pneumonia while being fed exclusively artificially, the other at five months of whooping cough and pneumonia while exclusively breast fed.

It is also interesting to note that the two babies weaned before the end of three months were weaned without my advice.

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GASTROENTEROSTOMY.*

(100 cases studied postoperatively.)

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In watching a series of stomachs two to eight years after operation it has been my impression that the results of gastroenterostomy are poor in a large per cent. of the cases, except in the cases of true pylorostenosis, where the gastroenterostomy acts in a definite drainage capacity.

Originally the wonderful immediate effect of the gastroenterostomy on the pain and other ulcer symptoms was ascribed to drainage but as fluoroscopy came into its own it was noticed that a large part of the food persisted in traveling through the pylorus no matter where the surgeon put the hole in the stomach, and let me say here, that where the surgeon puts his opening is not where the opening stays. Within the last week I had occasion to re-examine two gastroenterostomies, one two years and the other four years old. Both openings were put originally at the most dependent part of the stomach. One has wandered to the right till it empties in spurts with each contraction of the antrum; the other has been drawn up to the vertical part of the greater curvature, food wandering impartially both through the hole, as if it were a drainage pipe, and through the pylorus.

Later the surgeon explained his good results by the regurgitation of alkaline fluid neutralizing the gastric juice. Yet within the last few months the Mayo Clinic reports 11 cases of gastroenterostomy for duodenal ulcer, all of which had anacid stomachs. As a matter of facts, we haven't any idea why gastroenterostomy cures peripyloric ulcer. Finney gets the same results or better with pyloroplastics. If you ask the surgeon why he does a gastroenterostomy, he tries to explain but cannot. He always falls back upon the fact that gastroenterostomies do work. That is correct—but in my experience this immediate good effect is counteracted by a mortality within three months of approximately eight per cent. This figure is for the surgery of a great number of men who have had surgical services for years with large practical experience. This eight per cent. mortality compares very favorably with Coffey's (of Portland) seven per cent. mortality in one hundred cases of his own and Peck's (of Roosevelt Hospital, N. Y.) with eight per cent. in seventy-one cases. Those men, who have only two per cent. mortality—the mortality of accident, work only on selected cases. The cases which I see in clinic are very often moribund at operation. Among the bad results of gastroenterostomy in the 100 cases which I analyzed before giving this paper, I had three

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